

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re application of :

Docket No.: OT-4328

Frank W. Adams, et al. :

Date: June 15, 2000

Serial No.: 09/163,259 :

Group No.: 3652

Filed: September 29, 1998 :

Examiner: S. McAllister

Title: ELEVATOR SYSTEM HAVING DRIVE MOTOR LOCATED BETWEEN  
ELEVATOR CAR AND HOISTWAY SIDEWALL

Director of Patents and Trademarks  
Washington, D.C. 20231

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*Elizabeth A. Jones*  
Signature  
June 15, 2000  
Date

**REQUEST FOR RECONSIDERATION**

Dear Sir:

This is a request for reconsideration of the Office Action mailed February 17, 2000, for which a request for a one month extension of time is hereby submitted. Claims 1-6, 8 and 19 were rejected in the Office Action.

Claim 1 was rejected as being unpatentable over Aulanko et al. (EP0710618) in view of Gale. According to the Office Action, it would have been obvious to modify the apparatus of Aulanko et al. to use the flat ropes disclosed in Gale in order to produce a large friction surface.

Applicants respectfully disagree with this rejection. First, there is no motivation to combine these two references. The motivation cited in the Office Action to justify this combination is to produce a large friction surface. There is no indication within Aulanko et al. that additional friction surface would be desirable and, indeed, in elevator applications, too much friction is a safety hazard. In the event of an overrun of the elevator car, slip between the ropes and the traction sheave is necessary to avoid pulling the car into the roof of the building. This is particularly true for cars that utilize underslung roping.

Second, and more importantly, the use of flat ropes as disclosed in Gale with the apparatus of Aulanko et al. would destroy the function and purpose of the invention of Aulanko et al. As stated in the specification (column 1, line 49 to column 2, line 26), the principle objective is a space saving elevator. This is accomplished by using a flat machine unit such that the cross-sectional area of the hoistway is minimized. Using flat ropes, however, requires a traction sheave having an expanded axial dimension to account for the flattening out of the ropes. For the machine of Aulanko et al., this means that the traction sheave (item 7) would need to be extended and therefore the flatness of the machine would be eliminated. As a result, the space required for the machine is expanded and the objective of minimizing cross-sectional hoistway space is destroyed.

Therefore, the combination of Aulanko et al. and Gale is improper and this rejection of Claim 1 is traversed. Applicants respectfully request reconsideration and allowance of Claim 1.

Claims 2-6 and 8 were rejected as being unpatentable over Aulanko et al. (EP 0710618) in view of Gale, and further in view of Olsen. According to the Office Action, the motivation for this combination is to facilitate the use of the columns to guide both the car and counterweight.

Applicants respectfully disagree with this rejection. First, as discussed above, the combination of Aulanko et al. and Gale is improper. Therefore, the combination of Aulanko et al., Gale and Olsen is also improper.

Second, this combination is a clear case of hindsight reconstruction. Aulanko et al. discloses a system having a single set of traction ropes and using separate guide rails for the car and counterweight, with the counterweight rails supporting the machine. Gale discloses using one set of flat ropes for traction and another set of ropes for suspension. Olsen discloses a system having one set of rails for guiding both the car and counterweight with the machine supported by the hoistway wall. This rejection, however, combines the basic system of Aulanko et al. with the flat ropes of Gale by assuming that such ropes could be used to suspend the car and counterweight, and then further combines Aulanko et al. with the guide rails of Olsen by assuming that the guide rails of Aulanko et al. could be modified to guide both the car and counterweight and still support the machine. In effect, this rejection picks and chooses specific features of

dramatically different systems, and ignores the differences between the systems, to produce the claimed invention.

Therefore, the combination of Aulanko et al. with Gale and Olsen is improper and this rejection of Claims 2-6 and 8 is traversed. Applicants respectfully request reconsideration and allowance of Claims 2-6 and 8.

Claim 19 was rejected as being unpatentable over Pearson (1,035,230). According to the Office Action, even though Pearson does not disclose the existence of hoistway walls, it would have been obvious to incorporate hoistway walls into the apparatus of Pearson and into the specific configuration as claimed in Claim 19.

Applicants respectfully disagree with this rejection of Claim 19. First, as noted in the Office Action, Pearson does not disclose the existence of hoistway walls. Therefore, it is presumptuous to assume that the configuration claimed in Claim 19, that of having the machine located between the car travel path and the hoistway wall, is disclosed or suggested by Pearson.

Second, even if hoistway walls were shown in Pearson, it would have been impossible to arrange them such that the machine would be disposed between the hoistway wall and the car travel path as claimed in Claim 19. As is clearly evident in Figures 1 and 2 of Pearson, the machine is above the car and it would be impossible for the car to travel past the machine. Therefore, the machine cannot be between the car travel path and the wall.

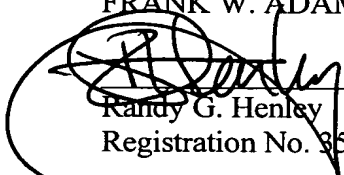
Therefore, this rejection of Claim 19 is traversed and Applicants respectfully request reconsideration and allowance of Claim 19.

Inasmuch as neither the structure nor function of Applicants' invention has been anticipated or made obvious, Applicants respectfully request reconsideration and allowance of pending Claims 1-6, 8 and 19.

Please charge any additional fees or credit overpayment to Deposit Account No.  
15-0750, Order No. OT-4328.

Respectfully submitted,

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